

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/591,199  
Source: IFWP  
Date Processed by STIC: 09/12/2006

***ENTERED***



IFWP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/591,199

DATE: 09/12/2006

TIME: 11:31:23

Input Set : A:\060825.Sequence Listing.txt  
 Output Set: N:\CRF4\09122006\J591199.raw

3 <110> APPLICANT: CREIGHTON UNIVERSITY  
 5 <120> TITLE OF INVENTION: ESTROGEN RECEPTORS AND METHODS OF USE  
 7 <130> FILE REFERENCE: 180.0012 0201  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/591,199  
 C--> 10 <141> CURRENT FILING DATE: 2006-08-30  
 12 <150> PRIOR APPLICATION NUMBER: 60/552,067  
 13 <151> PRIOR FILING DATE: 2004-03-10  
 15 <150> PRIOR APPLICATION NUMBER: 60/643,469  
 16 <151> PRIOR FILING DATE: 2005-01-13  
 18 <160> NUMBER OF SEQ ID NOS: 27  
 20 <170> SOFTWARE: PatentIn version 3.2  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 27  
 24 <212> TYPE: PRT  
 25 <213> ORGANISM: Artificial Sequence  
 27 <220> FEATURE:  
 28 <223> OTHER INFORMATION: C-terminus of SEQ ID NO:20  
 30 <400> SEQUENCE: 1  
 32 Gly Ile Ser His Val Glu Ala Lys Lys Arg Ile Leu Asn Leu His Pro  
 33 1 5 10 15  
 36 Lys Ile Phe Gly Asn Lys Trp Phe Pro Arg Val  
 37 20 25  
 40 <210> SEQ ID NO: 2  
 41 <211> LENGTH: 6  
 42 <212> TYPE: PRT  
 43 <213> ORGANISM: Artificial Sequence  
 45 <220> FEATURE:  
 46 <223> OTHER INFORMATION: carrier protein  
 48 <400> SEQUENCE: 2  
 50 Gln Phe Phe Gly Leu Met  
 51 1 5  
 54 <210> SEQ ID NO: 3  
 55 <211> LENGTH: 10  
 56 <212> TYPE: PRT  
 57 <213> ORGANISM: Artificial Sequence  
 59 <220> FEATURE:  
 60 <223> OTHER INFORMATION: carrier protein  
 62 <400> SEQUENCE: 3  
 64 Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu  
 65 1 5 10  
 68 <210> SEQ ID NO: 4  
 69 <211> LENGTH: 7  
 70 <212> TYPE: PRT

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71 <213> ORGANISM: Artificial Sequence  
73 <220> FEATURE:  
74 <223> OTHER INFORMATION: carrier protein  
76 <400> SEQUENCE: 4  
78 Lys Ala Glu Asp Glu Ser Ser  
79 1 5  
82 <210> SEQ ID NO: 5  
83 <211> LENGTH: 9  
84 <212> TYPE: PRT  
85 <213> ORGANISM: Artificial Sequence  
87 <220> FEATURE:  
88 <223> OTHER INFORMATION: carrier protein  
90 <400> SEQUENCE: 5  
92 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala  
93 1 5  
96 <210> SEQ ID NO: 6  
97 <211> LENGTH: 8  
98 <212> TYPE: PRT  
99 <213> ORGANISM: Artificial Sequence  
101 <220> FEATURE:  
102 <223> OTHER INFORMATION: carrier protein  
104 <400> SEQUENCE: 6  
106 Asp Tyr Lys Asp Asp Asp Asp Lys  
107 1 5  
110 <210> SEQ ID NO: 7  
111 <211> LENGTH: 11  
112 <212> TYPE: PRT  
113 <213> ORGANISM: Artificial Sequence  
115 <220> FEATURE:  
116 <223> OTHER INFORMATION: carrier protein  
118 <400> SEQUENCE: 7  
120 Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys  
121 1 5 10  
124 <210> SEQ ID NO: 8  
125 <211> LENGTH: 11  
126 <212> TYPE: PRT  
127 <213> ORGANISM: Artificial Sequence  
129 <220> FEATURE:  
130 <223> OTHER INFORMATION: carrier protein  
132 <400> SEQUENCE: 8  
134 Met Ala Ser Met Thr Gly Gly Gln Gln Met Gly  
135 1 5 10  
138 <210> SEQ ID NO: 9  
139 <211> LENGTH: 6  
140 <212> TYPE: PRT  
141 <213> ORGANISM: Artificial Sequence  
143 <220> FEATURE:  
144 <223> OTHER INFORMATION: carrier protein  
146 <400> SEQUENCE: 9

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Input Set : A:\060825.Sequence Listing.txt  
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148 Asp Thr Tyr Arg Tyr Ile  
149 1 5  
152 <210> SEQ ID NO: 10  
153 <211> LENGTH: 6  
154 <212> TYPE: PRT  
155 <213> ORGANISM: Artificial Sequence  
157 <220> FEATURE:  
158 <223> OTHER INFORMATION: carrier protein  
160 <400> SEQUENCE: 10  
162 Thr Asp Phe Tyr Leu Lys  
163 1 5  
166 <210> SEQ ID NO: 11  
167 <211> LENGTH: 6  
168 <212> TYPE: PRT  
169 <213> ORGANISM: Artificial Sequence  
171 <220> FEATURE:  
172 <223> OTHER INFORMATION: carrier protein  
174 <400> SEQUENCE: 11  
176 His His His His His  
177 1 5  
180 <210> SEQ ID NO: 12  
182 <400> SEQUENCE: 12  
W--> 183 000  
185 <210> SEQ ID NO: 13  
186 <211> LENGTH: 6  
187 <212> TYPE: PRT  
188 <213> ORGANISM: Artificial Sequence  
190 <220> FEATURE:  
191 <223> OTHER INFORMATION: carrier protein  
193 <400> SEQUENCE: 13  
195 Gln Tyr Pro Ala Leu Thr  
196 1 5  
199 <210> SEQ ID NO: 14  
200 <211> LENGTH: 11  
201 <212> TYPE: PRT  
202 <213> ORGANISM: Artificial Sequence  
204 <220> FEATURE:  
205 <223> OTHER INFORMATION: carrier protein  
207 <400> SEQUENCE: 14  
209 Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly Asp  
210 1 5 10  
213 <210> SEQ ID NO: 15  
214 <211> LENGTH: 6  
215 <212> TYPE: PRT  
216 <213> ORGANISM: Artificial Sequence  
218 <220> FEATURE:  
219 <223> OTHER INFORMATION: carrier protein  
221 <400> SEQUENCE: 15  
223 Glu Tyr Met Pro Met Glu

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/591,199

DATE: 09/12/2006

TIME: 11:31:24

Input Set : A:\060825.Sequence Listing.txt  
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224 1 5  
227 <210> SEQ ID NO: 16  
228 <211> LENGTH: 6  
229 <212> TYPE: PRT  
230 <213> ORGANISM: Artificial Sequence  
232 <220> FEATURE:  
233 <223> OTHER INFORMATION: carrier protein  
235 <400> SEQUENCE: 16  
237 Glu Phe Met Pro Met Glu  
238 1 5  
241 <210> SEQ ID NO: 17  
242 <211> LENGTH: 5  
243 <212> TYPE: PRT  
244 <213> ORGANISM: Artificial Sequence  
246 <220> FEATURE:  
247 <223> OTHER INFORMATION: carrier protein  
249 <400> SEQUENCE: 17  
251 Arg Tyr Ile Arg Ser  
252 1 5  
255 <210> SEQ ID NO: 18  
256 <211> LENGTH: 595  
257 <212> TYPE: PRT  
258 <213> ORGANISM: Homo Sapiens  
260 <400> SEQUENCE: 18  
262 Met Thr Met Thr Leu His Thr Lys Ala Ser Gly Met Ala Leu Leu His  
263 1 5 10 15  
266 Gln Ile Gln Gly Asn Glu Leu Glu Pro Leu Asn Arg Pro Gln Leu Lys  
267 20 25 30  
270 Ile Pro Leu Glu Arg Pro Leu Gly Glu Val Tyr Leu Asp Ser Ser Lys  
271 35 40 45  
274 Pro Ala Val Tyr Asn Tyr Pro Glu Gly Ala Ala Tyr Glu Phe Asn Ala  
275 50 55 60  
278 Ala Ala Ala Asn Ala Gln Val Tyr Gly Gln Thr Gly Leu Pro Tyr  
279 65 70 75 80  
282 Gly Pro Gly Ser Glu Ala Ala Ala Phe Gly Ser Asn Gly Leu Gly Gly  
283 85 90 95  
286 Phe Pro Pro Leu Asn Ser Val Ser Pro Ser Pro Leu Met Leu Leu His  
287 100 105 110  
290 Pro Pro Pro Gln Leu Ser Pro Phe Leu Gln Pro His Gly Gln Gln Val  
291 115 120 125  
294 Pro Tyr Tyr Leu Glu Asn Glu Pro Ser Gly Tyr Thr Val Arg Glu Ala  
295 130 135 140  
298 Gly Pro Pro Ala Phe Tyr Arg Pro Asn Ser Asp Asn Arg Arg Gln Gly  
299 145 150 155 160  
302 Gly Arg Glu Arg Leu Ala Ser Thr Asn Asp Lys Gly Ser Met Ala Met  
303 165 170 175  
306 Glu Ser Ala Lys Glu Thr Arg Tyr Cys Ala Val Cys Asn Asp Tyr Ala  
307 180 185 190  
310 Ser Gly Tyr His Tyr Gly Val Trp Ser Cys Glu Gly Cys Lys Ala Phe

RAW SEQUENCE LISTING DATE: 09/12/2006  
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Input Set : A:\060825.Sequence Listing.txt  
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311	195	200	205	
314	Phe Lys Arg Ser Ile Gln Gly His Asn Asp Tyr Met Cys Pro Ala Thr			
315	210	215	220	
318	Asn Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Ser Cys Gln Ala Cys			
319	225	230	235	240
322	Arg Leu Arg Lys Cys Tyr Glu Val Gly Met Met Lys Gly Gly Ile Arg			
323	245	250	255	
326	Lys Asp Arg Arg Gly Gly Arg Met Leu Lys His Lys Arg Gln Arg Asp			
327	260	265	270	
330	Asp Gly Glu Gly Arg Gly Glu Val Gly Ser Ala Gly Asp Met Arg Ala			
331	275	280	285	
334	Ala Asn Leu Trp Pro Ser Pro Leu Met Ile Lys Arg Ser Lys Lys Asn			
335	290	295	300	
338	Ser Leu Ala Leu Ser Leu Thr Ala Asp Gln Met Val Ser Ala Leu Leu			
339	305	310	315	320
342	Asp Ala Glu Pro Pro Ile Leu Tyr Ser Glu Tyr Asp Pro Thr Arg Pro			
343	325	330	335	
346	Phe Ser Glu Ala Ser Met Met Gly Leu Leu Thr Asn Leu Ala Asp Arg			
347	340	345	350	
350	Glu Leu Val His Met Ile Asn Trp Ala Lys Arg Val Pro Gly Phe Val			
351	355	360	365	
354	Asp Leu Thr Leu His Asp Gln Val His Leu Leu Glu Cys Ala Trp Leu			
355	370	375	380	
358	Glu Ile Leu Met Ile Gly Leu Val Trp Arg Ser Met Glu His Pro Val			
359	385	390	395	400
362	Lys Leu Leu Phe Ala Pro Asn Leu Leu Leu Asp Arg Asn Gln Gly Lys			
363	405	410	415	
366	Cys Val Glu Gly Met Val Glu Ile Phe Asp Met Leu Leu Ala Thr Ser			
367	420	425	430	
370	Ser Arg Phe Arg Met Met Asn Leu Gln Gly Glu Phe Val Cys Leu			
371	435	440	445	
374	Lys Ser Ile Ile Leu Leu Asn Ser Gly Val Tyr Thr Phe Leu Ser Ser			
375	450	455	460	
378	Thr Leu Lys Ser Leu Glu Glu Lys Asp His Ile His Arg Val Leu Asp			
379	465	470	475	480
382	Lys Ile Thr Asp Thr Leu Ile His Leu Met Ala Lys Ala Gly Leu Thr			
383	485	490	495	
386	Leu Gln Gln Gln His Gln Arg Leu Ala Gln Leu Leu Ile Leu Ser			
387	500	505	510	
390	His Ile Arg His Met Ser Asn Lys Gly Met Glu His Leu Tyr Ser Met			
391	515	520	525	
394	Lys Cys Lys Asn Val Val Pro Leu Tyr Asp Leu Leu Glu Met Leu			
395	530	535	540	
398	Asp Ala His Arg Leu His Ala Pro Thr Ser Arg Gly Gly Ala Ser Val			
399	545	550	555	560
402	Glu Glu Thr Asp Gln Ser His Leu Ala Thr Ala Gly Ser Thr Ser Ser			
403	565	570	575	
406	His Ser Leu Gln Lys Tyr Tyr Ile Thr Gly Glu Ala Glu Gly Phe Pro			
407	580	585	590	

**VERIFICATION SUMMARY** DATE: 09/12/2006  
PATENT APPLICATION: US/10/591,199 TIME: 11:31:25

Input Set : A:\060825.Sequence Listing.txt  
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L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:183 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE: